



ELE 1470561US

FORM PTO-1082

6 081

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Applicants: Oskar PAINTER, Ming CAI, Kerry VAHALA  
and Peter C. SERCEL

Serial No: Not yet assigned

Filed: 09 March 2001

For: MICRO-CAVITY LASER

RECEIVED  
OCT 15 2001  
TECHNICAL STAFF

## BOX PATENT APPLICATION

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Transmitted herewith for filing is the non-provisional patent application identified above.

- ☒ 9 sheets of drawings (☐ formal ☒ informal) are enclosed.
- ☒ 32 pages of specification and 1 page of abstract of the invention are enclosed.
- ☒ An un-executed assignment of the invention to CALIFORNIA INSTITUTE OF TECHNOLOGY and ALEPH LIGHTGATE CORPORATION is enclosed.
- ☐ An associate power of attorney ☐ is enclosed ☐ will follow.
- ☒ An un-executed verified statement to establish small entity status under 37 C.F.R. §§ 1.9 & 1.27 for CALIFORNIA INSTITUTE OF TECHNOLOGY is enclosed.
- ☒ An un-executed verified statement to establish small entity status under 37 C.F.R. §§ 1.9 & 1.27 for ALEPH LIGHTGATE CORPORATION is enclosed.
- ☒ An un-executed Declaration and Power of Attorney is enclosed.
- ☒ Priority is claimed on U.S. Provisional Patent Application Serial No. 60/188325 filed on 09 March 2000.

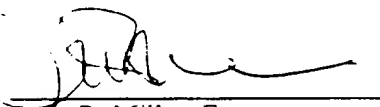
CALCULATION OF FEES								
ITEM		TOTAL NO. OF CLAIMS		NO. OF CLAIMS OVER BASE	LG/SM \$ ENTITY FEE		\$ AMOUNT	\$ FEE
A	TOTAL CLAIMS FEE	59	-20	39	LG=\$18 SM=\$9	351.00	351.00	N/A
B	INDEPENDENT CLAIMS FEE*	8	-3	5	LG=\$78 SM=\$39	195.00	195.00	N/A
C	SUBTOTAL - ADDITIONAL CLAIMS FEE (ADD FINAL COLUMN IN LINES A+B)							546.00
D	MULTIPLE-DEPENDENT CLAIMS FEE					LARGE ENTITY FEE=\$260 SMALL ENTITY FEE=\$130		
E	BASIC FEE					LARGE ENTITY FEE=\$760 SMALL ENTITY FEE=\$380		380.00
F	TOTAL FILING FEE (ADD TOTALS FOR LINES C, D, AND E)							926.00
	*LIST INDEPENDENT CLAIMS [LIST OF INDEPENDENT CLAIMS]							N/A

- ☒ A check in the amount of \$926.00 over the filing fee is enclosed.
- ☐ A check in the amount of \$\_\_\_\_\_ to cover Assignment Recordation fee is enclosed with the Recordation Cover Sheet
- ☐ The Commissioner is hereby authorized to charge any deficiency for the following fees associated with this communication or credit any overpayment to Deposit Account No. \_\_\_\_\_. **A copy of this sheet is enclosed.**
- ☐ Any additional filing fees required under 37 C.F.R. § 1.16
- ☐ Any patent application processing fees under 37 C.F.R. § 1.17

Respectfully submitted,

Date: 09 March 2001

By:

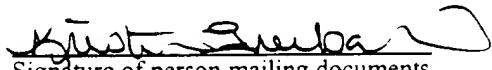
  
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**CERTIFICATION UNDER 37 CFR 1.10**

I hereby certify that this paper and the documents referred to as enclosed therein are being deposited with the United States Postal Services on this date **09 March 2001** in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number **EL631470561US** addressed to the "BOX NEW PATENT APP/FEE, Assistant Commissioner for Patents, Washington, D.C. 20231".

  
Signature of person mailing documents

Kristin Freebairn 3/9/01  
Print name of person mailing documents



COPY



## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20531  
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/802,442	03/09/2001	2881	906	6/081	9	59	8

CONFIRMATION NO. 7245

## FILING RECEIPT



\*OC00000006011732\*

26719  
RIORDAN & MCKINZIE  
300 SOUTH GRAND AVENUE  
29TH FLOOR  
LOS ANGELES, CA 90071

Date Mailed: 04/26/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Oskar Painter, Pasadena, CA;  
Ming Cai, Pasadena, CA;  
Kerry J. Vahala, San Gabriel, CA;  
Peter C. Sercel, Pasadena, CA;

## Assignment For Published Patent Application

CALIFORNIA INSTITUTE OF TECHNOLOGY;  
ALEPH LIGHTGATE CORPORATION;

## Domestic Priority data as claimed by applicant

THIS APPLN CLAIMS BENEFIT OF 60/188,325 03/09/2000

## Foreign Applications

If Required, Foreign Filing License Granted 04/25/2001

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

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**\*\* SMALL ENTITY \*\***

**Title**

Micro-cavity laser

**Preliminary Class**

372

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**Data entry by :** NGUYEN, NGAN

**Team :** OIPE

**Date:** 04/26/2001

**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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**PLEASE NOTE the following information about the Filing Receipt:**

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 500 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents  
Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231

endor 3462 CHECK# 95512

"micro-cavity laser"

926.00

LAW OFFICES  
**RIORDAN & McKINZIE**

A Professional Corporation  
CALIFORNIA PLAZA  
300 S. GRAND AVENUE, 29th Floor  
LOS ANGELES, CA 90071

Citibank, F.S.B.

333 S. GRAND AVENUE  
LOS ANGELES, CALIFORNIA 90071

90-7172/395  
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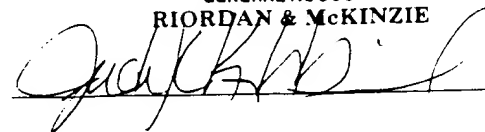
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Docket No. 6/081

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THE U.S. PATENT AND TRADEMARK OFFICE MAIL ROOM HEREBY  
ACKNOWLEDGES RECEIPT OF THE FOLLOWING DOCUMENTS:

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Receipt is hereby acknowledged of the following: Transmittal letter for Non-Provisional  
Patent Application w/Certificate of Mailing; specification, claims, abstract and formal  
drawing sheets); unexecuted Declaration and Power of Attorney; unexecuted Small Entity  
Status; check; and this post card

In Reference of: Oskar PAINTER, et al for the invention entitled "MICRO-CAVITY  
LASER" to be assigned to California Institute of Technology and Aleph Lightgate  
Corporation

Express Mail Label No. EL631470561US

Mailing Date: March 09, 2001